

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

24207-10081

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on _____

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Typed or printed name _____

Application Number

10/815,074

Filed

March 31, 2004

First Named Inventor

Stephen R. Lawrence

Art Unit

2167

Examiner

Robert M. Timblin

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

/Jie Zhang/

Signature

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

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January 22, 2010

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below.

☒ *Total of 1 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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ATTACHMENT TO THE PRE-APPEAL BRIEF REQUEST FOR REVIEW

Pre-appeal review is requested because the rejections in the October 26, 2009 Final Office Action are clearly improper and without any factual or legal basis. Appellant respectfully requests that the Panel indicate claims 1-28 recite allowable subject matter.

Claims 1-28 are pending and stand rejected. Claims 1-2, 4-12, 15-18, and 21-26 stand rejected under 35 USC § 102(c) as allegedly being anticipated by U.S. Patent No. 7,099,860 by Liu et al. ("Liu"). Claim 3 stands rejected under 35 USC § 103(a) as allegedly being unpatentable over Liu in view of U.S. Patent Application Publication No. 2003/0135490 to Barrett et al. ("Barrett"). Claims 13, 14, 19, 20, 27, and 28 stand rejected under 35 USC § 103(a) as allegedly being unpatentable over Liu.

Claim 1 relates to reranking a merged search result of multiple queries based on a user input. Query results of a plurality of search queries that were submitted separately are merged into a merged query result, which is then ranked and presented to a user in the ranked sequence. A user input indicates an interest in a piece of information in the merged query result. A search query associated with that piece of information is identified and a query factor for that search query is adjusted responsive to the input. A score for a second piece of information associated with that search query is determined based on the adjusted query factor. The merged query result is then reranked based on the score and presented in the reranked sequence. The claimed invention is useful, for example, for dynamically presenting relevant search results to a user based on real-time user feedback.

Liu fails to disclose the following claim elements recited in claim 1: (1) "receiving a plurality of query results of a plurality of search queries that were submitted separately", (2) "identifying a search query from the plurality of search queries associated with the merged query

result, the identified search query being associated with a query result including the first piece of information”, and (3) “adjusting a query factor associated with the identified search query ...; determining a score for the second piece of information based at least in part on the query factor associated with the identified search query”. Liu, in contrast, discloses an image retrieval system that performs both keyword-based and content-based image retrieval. See Liu, Abstract. Unlike the claimed invention, which is directed to ranking merged query result of multiple separately submitted queries, Liu merely teaches conducting image searches for a single query and ranking query result of the single query. Nowhere does Liu disclose merging query results of a plurality of separately submitted search queries, identifying one such search query associated with a query result including a piece of information, adjusting a query factor of the query, and determining a score of another piece of information associated with the query as is claimed in independent claim 1.

I. LIU DOES NOT DISCLOSE A PLURALITY OF SEPARATELY SUBMITTED SEARCH QUERIES

The Examiner cited col. 3, lines 23-25 (3:23-25), 3:32-34, 7:67-8:10, 12:13, 5:67-6:7, 8:11-14, and Figures 3 (reference 302) and 6-7 of Liu for disclosing element (1). Liu at 3:23-25 discloses that a user can specify a query using keywords and images. Liu at 3:32-34 discloses that user feedback is used to refine a search result and Figures 6-7 are corresponding screenshots. Liu at 5:67-6:7, 7:67-8:10, and 12:13 discloses that one or more keywords can be extracted from a single user query. Figure 3 and the corresponding description describe a semantic network in which images and keywords are connected through keyword-image links. Weights can be assigned to the links to represent the degrees of relevance. Liu at 8:11-14 discloses that words similar to those in the user query may be simultaneously searched. The similar words are generated and searched to add additional images to the result set of the user query. Thus, like the

rest of Liu, the cited sections and Figures do not disclose “a plurality of search queries that were submitted separately” as claimed.

In the Response to Arguments section of the Office Action, the Examiner unreasonably equated keywords extracted from a user query in Liu to the claimed plurality of separately submitted search queries. The keywords in Liu are extracted from a single user query (8:5-6) and thus are not “submitted separately”. In addition, Liu explicitly discloses that a query can include multiple keywords (3:23-25). Thus, it is unreasonable to equate multiple keywords extracted from a single search query in Liu to the claimed plurality of separately submitted search queries. In addition, the Examiner equated the similar words disclosed in Liu at 8:11-14 that are simultaneously searched as the separately submitted search queries. These similar words are generated and searched to add additional images to the search set of the user query, and are not “search queries that were submitted separately”.

II. LIU DOES NOT DISCLOSE IDENTIFYING A SEARCH QUERY FROM THE PLURALITY OF SEPARATELY SUBMITTED SEARCH QUERIES

The Examiner cited 3:41-48, 10:32-36 (step 4), 8:57, 6:8-19, and Figures 3 (reference 304) and 6-7 of Liu for disclosing element (2). Liu at 3:41-48 discloses selectively increasing weights assigned to keyword-image links based on user feedback. Liu at 10:32-36 and 8:57 discloses increasing weights of keyword-image links between query keywords and images receiving positive feedback. As argued above, Figure 3 and 6-7, and corresponding description similarly do not disclose identifying a search query from the plurality of separately submitted search queries as claimed.

In the Response to Arguments section, the Examiner argued that because Liu is able to identify a link between a keyword and an image selected by a user and assign a large weight to

the link (8:55-57), Liu discloses element (2). As argued above, a keyword is not equivalent to a separately submitted search query, and thus identifying a keyword-image link is not equivalent to identifying a query from a plurality of separately submitted search queries. The Examiner also argued because Liu enables a user to provide relevant marks to individual images (9:60-61) and checks whether any query keyword (comparing to the similar words) is linked to an image that receives a positive feedback, Liu discloses element (2). However, Liu teaches conducting image searches using a single user query. Interpreting element (2) as identifying that single user query is unreasonable and essentially renders this claim element meaningless. This unreasonableness is more apparent when applied to dependent claim 2, which recites “identifying the second search query from the plurality of search queries”. The Examiner cited the same sections of Liu to support disclosure of the above claim element of claim 2, and interpreted the user query as both the identified search query and the second search query. Because it is clear from the claim language that the identified search query and the second search query are distinct search queries, this interpretation is both improper and unreasonable.

III. THE EXAMINER’S INTERPRETATION OF QUERY FACTOR, SCORE, AND INDEX SCORE IS UNREASONABLE

The Examiner cited 3:41-50, 5:24-29, 8:52-64, 9:16-19, and 10:32-36 (step 4) of Liu for disclosing element (3). Liu at 3:41-50, 8:52-64, and 10:32-36 discloses selectively increasing weights assigned to keyword-image links based on user feedback. Liu at 5:24-29 discloses a semantic network of weighted keyword-image links. Liu at 9:16-19 discloses locating images with similar low-level features as images selected by the user and displaying such images. It appears the Examiner equated the weights of the keyword-image links to both the claimed query factor and the claimed score. The weight of a keyword-image link is specific to an image, and

thus is not equivalent to the query factor that is associated with a particular search query and not tied to any particular piece of information. In addition, a weight of a particular keyword-image link in Liu is unrelated to weights of other keyword-image links. Interpreting both the claimed query factor and the claimed score as weights of keyword-image links would lead to an interpretation of element (3) as determining the weight of one keyword-image link based on the weight of another link. However, this interpretation contradicts Liu's own disclosure.

The unreasonableness of the above claim interpretation is more obvious in view of claim 2. Dependent claim 2 recites, among other claim elements, the following: "determining a first index score of the first piece of information in the search result associated with the identified search query, the first index score measuring how well keywords in the identified search query match the first piece of information". Thus, the claimed first index score, unlike the query factor associated with the identified search query, is specific to the first piece of information. In rejecting this element of claim 2, the Examiner equates the first index score to the weight of a keyword-image link. By indiscriminatorily treating the distinct claim features of query factor, score, and index score as equivalent to the weight of a keyword-image link, the Examiner rendered the additional limitations recited in claim 2 meaningless.

Accordingly, one of ordinary skill would not find claims 1 and 2 anticipated by Liu. Claims 18, 23, 25, and 26 are not anticipated for at least the same reasons. One of ordinary skill would also not find these claims obvious in view of Liu and Barrett since Barrett also fails to disclose the claim elements not taught by Liu. Thus, the pending rejections are defective and their withdrawal is requested.